CENTER FOR SCIENTIFIC COMPUTING AND IMAGING

CENTER

The Center for Scientific Computing and Imaging was created in 1996 to make available a commercial version of the SCIRun Software System. This is an interactive, visually based, scientific, engineering, and medical programming environment that allows the interactive construction, manipulation, and visualization of scientific and engineering simulations.

TECHNOLOGY

SCIRun technology provides scientists and engineers with a new model for scientific computing. The model relies on modern computing technologies such as graphical user interfaces and 3D graphics to provide a visual programming and problem-solving environment to investigate complex problems. The increased flexibility attempts to provide a "computational workbench" for scientific computing where experiments are formed, new methods explored, and tedious coding kept to a minimum.

ACCOMPLISHMENTS

A start-up company (Visual Influence, Inc.) was created last year to develop products based on the SCIRun software system technology. The company has been granted license rights to specific fields of use including medical imaging applications in exchange for royalty payments and first rights of refusal on future application modules. The company is seeking venture investment capital. In addition, the Center has been approached by several other companies interested in license rights for specific applications and to develop specific technology oriented software packages based on the SCIRun technology. During the current year the SCIRun software has been moved to an open platform in an effort to broaden its usage. It will allow the Center to utilize more outside resources for program debugging and product development. Administrators of the Center are Dr. Christopher Johnson, director, and Dr. Steven Parker, associate director. The Center was also granted ownership of Integrated Paleontological System (IPS) software for further research, development, and commercialization. The Technical Alliance for Computational Stratigraphy (TACS), a consortium of nine petroleum companies, has been established to fund a three-year commercialization and development initiative. The Center for Scientific Computing and Imaging was graduated at the end of the 2000 fiscal year.

CONTACT

Director: Christopher R. Johnson, Ph.D.
University of Utah, Salt Lake City, Utah
Phone: 801-581-7705 Fax: 801-585-6513
E-Mail: crj@cs.utah.edu
Web: www.cs.utah.edu/sci

Can You Imagine...

. . . software that can create detailed, three-dimensional images of human arterial systems from raw MRI data and allow radiologists to rotate the images for complete diagnostic evaluation?

THE CENTER DEVELOPS SOPHISTICATED SOFTWARE THAT ALLOWS THE VISUALIZATION OF COMPLEX ENGINEERING AND SCIENTIFIC SIMULATIONS.
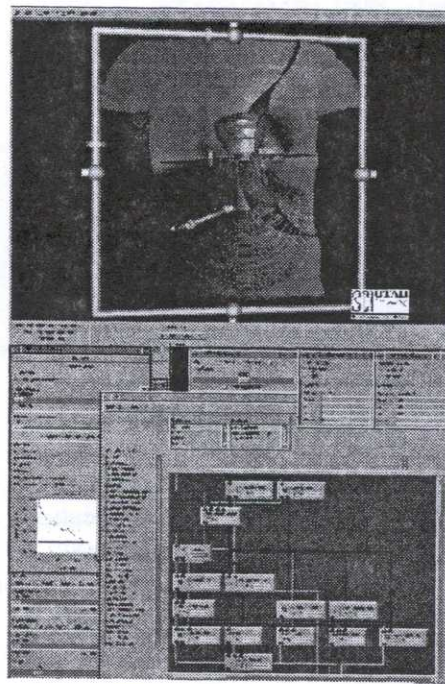
An example SCIRun network, showing the dataflow-programming interface, user interfaces for controlling simulation parameters, and results from a computer simulation of internal cardiac defibrillation.